

VIRGINIA WILDLIFE

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Fish and Wildlife Service Photo by Ray Erickson

Canada goose nest and goslings. This stately game bird nests in the far north, but during migration is the most wide spread of its tribe in North America.

VIRGINIA WILDLIFE

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A Monthly Magazine Dedicated to the Conservation, Restoration, and Wise Use of Virginia's Wildlife and Related Natural Resources, and to the Betterment of Hunting and Fishing in Virginia

COMMONWEALTH OF VIRGINIA



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In This Issue

	Page
Editorial	4
National Forests — America's Boon to Outdoor Recreation	5
But Best I Remember Butch	8
These Bugs Around Us	10
Ninth Annual Wildlife Essay Contest Winners	13
Virginia's Ten Fishing Hot Spots (Pictorial)	14
Is The Trout Fisherman Paying His Way?	16
Beware of Poison Ivy	18
In Defense of the Pickerel	20
Meadows of Dan	21
The Drumming Log	24
Field Force Notes	26
Wildlife Questions and Answers	27
Homes for Wildlife	28

Cover

The Eastern house wren (*Troglodytes aëdon*) is common to the orchards, farmyards and gardens of Virginia. An old hollow gourd is home to this bird.

National Audubon Society Photo by Roger T. Peterson

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TWINS OF A FEATHER

THE other day I heard a prominent educator speak before a large youth group, pointing out the aims of modern education and the necessity of preserving our special way of life—the democratic, Christian way as we know of it in America. He went on to say how important it was that our youth should not lose the pioneer spirit, for it was the pioneer spirit and the strength of our natural resources which have made America great. Pioneer spirit and natural resources, how true.

During World War II, I was a graves registration officer, charged with the responsibility of catering to the dead of war-torn Europe. After we collected and buried the dead from the beaches of Normandy and from the hedgerows of Brittany and central France and across the swollen rivers of Belgium, Holland and Germany, there was a lull in the fighting and our company was given a breathing spell. During one of these rest periods I had a chance to go to southern Europe, particularly in the Mediterranean area, where I had the occasion to see not only scenic beauty of picturesque lands but also the ruins of once pretentious cities. One of the things that struck me forcibly was the ruins of great metropolitan centers of ancient days and, seeing them, I couldn't help but wonder why these people disappeared. When one sees what is left of the Forum of ancient Rome or sees the ruins of Thamugadi or Athens or in the Middle East, Babylon, with its once great hanging gardens, it makes one wonder just why these great civilizations ceased to be. Why did the rulers topple from power and why did the people go?

Knowing history as we do, there is little need for wondering. History is replete with records of great civilizations who have vanished because they simply failed to understand several simple laws of nature. Most of these people failed to appreciate their wealth and position in the world and allowed themselves to get into a period of physical and moral decay. Reaching the top in power and development, they gradually ceased to care much about anything but their own pleasures. Godless, apathetic, immoral, they grew weak and in their weakness allowed themselves to be overrun by tribes and forces from other lands.

To put it simply, they ceased to maintain the pioneer spirit of a growing people. They ceased to take care of the rich and extensive lands that came under their control. They lost the will to fight, and they lost the will to protect the natural resources that came under their control. These people had risen to a grandeur of fortune and power and skill, had risen to great heights in learning and culture and yet they died. Why? It is something for us to think about in America, for, from Rome and Thymus, from ancient Greece and Carthage, from Babylon and Cyprus, we can draw a powerful

lesson in history, and we can apply it to our own people in our own land. The question is frequently asked: will history repeat itself? Will decay, too, come to America? Will we someday be like Greece and some of the other nations of the Middle East, poverty stricken, their resource base gone, their peoples desperately trying to throw off the shackles of communism?

Let's hope not. Let's pray not. Let's resolve that decadence must not come to America and that history will not repeat itself in our land.

Yet there are disturbing straws in the wind. Witness the destruction of our valuable topsoil on every hand and witness what is happening to this topsoil as the winds and waters take it from its normal resting place and carry it away in silt or in dust to places where it can never serve man again; witness the rivers of the land, muddied with the bread of life, filling our reservoirs, estuaries and river beds with the best farm land that nature can give.

Witness the waters themselves as they move uncontrolled, often savage, poisoned and polluted, past our cities to the sea, killing fish, endangering human life. We can understand such things happening in China and in other places where the people have failed to understand nature's law and order, but in America, with all of our advancement in science and learning, such is inexcusable. Witness, too, the overcutting of our forests, the burning of woodlands and the decimation of wildlife on every hand. Straws in the wind. What do they mean? Could they mean that we are losing some of that pioneer spirit such as characterized some of the great men of our times—men like Washington, Jefferson, Lincoln, and Lee? Could it be that in our materialistic existence we are losing quality of leadership in high places and getting men who frequently are willing to sacrifice right for expediency, public interest for personal gain?

Let's hope not. Yet we know full well that those twins of a feather that flock together, apathy and indifference, have been a great factor in making us unwilling to accept a basic premise in life, where almost every purpose and activity of modern living takes precedence over the one most basic purpose of all — *that of conserving the living resources of the earth*. Unless we recognize this fact and strive as a people to keep our resource base strong, we, too, may some day find ourselves in the position of bygone civilizations.

The next time you see the ugly fingers of *grease* and *disregard* spreading their ill effects in your community or in other communities, just remember Rome and Babylon. Remember, it could happen here. It can—but it must not, and you, as an American citizen, by fighting apathy and indifference to conservation can surely prevent it from happening. — J. J. S.

NATIONAL FORESTS— America's Boon to Outdoor Recreation

By RICHARD E. McCARDLE, Chief
U.S. Forest Service



U. S. Forest Service Photos

Recreation visits to the national forests in 1955 exceeded 45 million, twice as many as in 1948. By 1975 Forest Service experts predict 100 million visits.

NATIONAL forests provide the finest system of public hunting and fishing grounds in the United States. The George Washington and Jefferson National Forests in Virginia are no exception. These forests have some of the best cooperative State game management programs in the country.

Last year over eleven million visits were made to national forests for hunting or fishing. That is nearly a quarter of the total recreation use. Recreational visits to the national forests in 1955 exceeded forty-five million — twice as many as in 1948. If this interest continues, and all indications are that it will, we can expect one hundred million visits by 1975. The Forest Service will have quite a job to meet this need adequately and fit it into a multiple-use program.

Editor's Note:

The George Washington and the Jefferson National Forests are managed by the forest supervisors stationed respectively in Harrisonburg and Roanoke. Forest rangers of the George Washington are located at Staunton, Bridgewater, Edinburg, Buena Vista, Covington, and Hot Springs, and rangers of the Jefferson are at Norton, Natural Bridge Station, Mariou, New Castle and Wytheville. The forest supervisors and rangers are well acquainted with these forests and are ready to assist all persons desiring information.

Multiple use is a basic principle in national forest management. The principle prescribes an objective that all resources of national forests will be developed and used in a manner and combination that perpetuates the resources with due consideration for the needs of people. Obviously, it does not mean that all the resource possibilities can be developed on the same area. In some cases one resource of an area is of such importance that all other uses are limited. Intensively used recreation areas are examples where priority is given to one use to the exclusion of others. However, on large administrative units such as ranger districts or entire national forests, watershed protection, management and harvesting of timber, recreation, wildlife production and other uses of the forest can be coordinated in ways which will provide the optimum long-time benefits to the public. That is the essence of multiple-use management.

It is inherent in this principle that on-the-ground judgment and a full knowledge of local needs are essential for success. Multiple-use management just will not work under hard and fast rules of centralized authority.

The Forest Service of the Department of Agriculture accomplishes this job by a decentralized organization. The Chief's office in Washington sets up the broad objectives and principles of good land management which are expected to result in wise use and protection of the forests. The regional foresters fit these objectives and principles to the forests in their region. The forest supervisor directs the job on the ground through the district forest rangers.

This decentralized organization results in a "feet-on-the-ground" administration, close cooperation with local people, and prompt decisions on matters affecting local problems. At the same time supervision from the regional forester and the Chief's office prevents losing sight of long-term national objectives. For the long pull, management is directed at preservation of soils, regeneration of renewable resources, protection from damage and careful use of non-renewable resources. The Forest Service tries to resolve any conflict of uses in favor of the use that provides the greatest service to the public welfare. That is not always a simple thing to do.

The minerals on national forest land are not all controlled by the Forest Service. The mining laws applicable to most western national forest land permit location and entry on the basis of a discovery of "hard rock" minerals. Also, the Mineral Leasing Act of February 25, 1920, authorizes the Secretary of the Interior to lease deposits of oil, gas, oil shale, coal and potassium, phosphates, sodium, and sulphur.

On the national forest lands which were once in other ownership — generally those in the East — minerals are disposed of by permit or lease. Mineral leases are issued by the Bureau of Land Management in the Department of the Interior, but the Forest Service decides whether mineral development can be allowed without undesirable interference with national forest purposes. In giving consent to a lease the Forest Service requires such stipulations in the lease as will adequately protect the forests from unreasonable damage.

The Jefferson National Forest in Virginia presents some particularly complicated mineral and land use

problems in the vicinity of Marion where valuable deposits of manganese have been found. Manganese is a strategic and rare metal in the United States. These deposits can only be worked by strip-mining methods which, if not regulated, would seriously damage the soil, result in stream pollution, and adversely affect domestic water supplies, industrial water, and fish life. Under some conditions it would not be in the public interest to permit strip-mining operations in the national forests, since the damage to public resources and values would exceed the benefits. But the United States needs manganese, it is a vital defense metal, and a developed domestic source of supply would be the most important in an emergency. With the advice of defense agencies, the Forest Service permitted strip-mining for manganese near Marion under conditions designed to minimize the damage. In this case it was apparent that the importance of manganese to the Nation outweighed the damages to soil and other resources.

That is an example of the type of land use problem that causes the public land manager and forester sleepless nights. According to the reports from the U. S. Geological Survey, Virginia and the Jefferson National Forest now rank among the important manganese producing areas in the United States.

The national forest facilities originally designed to take care of the recreation use are now being used to capacity and on weekends many popular camp and picnic spots are badly overcrowded. Some 4,700 improved camp, picnic, and winter sports areas have been provided for the enjoyment of the public. These areas are simple, designed for forest type recreation, and every effort is made to preserve the forest environment as much as possible. Improvements are generally rustic in style and limited to those necessary for sanitation, public safety, and convenience. Urbanization and commercialization are discouraged; simplicity and informality are encouraged. Forest recreation areas are intended to fill a public need for simple forms of forest recreation and to supplement rather than to compete with national and state parks or municipal recreation areas.



Winter sports are only one of the many multiple use recreational values derived from our national forests. This ski slope is in the Wenatchee National Forest, Washington State.



On our national forests some 4,700 improved camp, picnic and winter sports areas have been provided for the enjoyment of the public.



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Most national forest recreation areas are relatively small and are located along forest roads back from main highways. Only about 250 of the 4,700 areas receive as many as 25,000 visits per season.

Generally recreation areas are free, but modest charges are made at some 50 large, well developed areas. The purpose of this policy is to require actual users to pay a part of the cost of operation. The charge represents only the cost of cleanup-supervision, sanitation and current maintenance. Charge areas are mostly operated by concessioners who collect the fee and are required to keep the area in good condition and pay the United States a percentage of the collections. Sherando Lake in the George Washington National Forest, and Cave Mountain in the Jefferson National Forest are charge areas. The charge at these areas is 25 cents per person per day.

In addition to these public use areas, the Forest Service has constructed some organization camps for groups sponsoring outdoor vacations for young people. Public and semi-public organizations are also permitted to construct such camps for their own use on national forest lands. The Powells Fort and Sherando Organization Camps in the George Washington National Forest are Government-owned organization camps; Camp May Flather is owned and operated by the Girl Scouts under special use permit.

The Forest Service also allows resort development when there is a public need for such services. These resorts are constructed and operated by private enterprise. A land rental of one percent of gross income is the usual charge for this use.

The vast back country of the national forests, particularly in the mountainous areas of the West, is a recreation paradise for many people with ideal opportunities for hiking, riding, and mountain climbing. Seventy-nine areas totaling some 14 million acres have been set aside for wilderness enjoyment in which primitive conditions of transportation and environment are maintained. It is a place to enjoy unspoiled nature and solitude — and some of the best hunting and fishing in the country. None of these established wilderness areas are in the



The George Washington and Jefferson Forests in Virginia are the home of many game animals and birds. These two forests received some 600,000 recreational visits last year.

national forests of Virginia, but ample opportunity to enjoy wilderness environment can be found in some of the forests on the upper slopes and valleys of the Blue Ridge Mountains.

The George Washington and Jefferson Forests extend along the Blue Ridge from Front Royal to the Tennessee line. They total 1,418,000 acres of rough, timbered country. These forests provide much of the water used by Virginia towns and industry. They yielded a harvest of 27-1/2 million feet of timber worth nearly \$210,000 last year. They are the home of many big-game animals. Being particularly important as recreation areas, these forests received some 600,000 recreation visits last year. Sherando Lake, Elizabeth Furnace, Hone Quarry, and New Market Gap are the principal public recreation areas on the George Washington National Forest. Cave Mountain and High Knob are two well-known, popular recreation areas on the Jefferson National Forest.

The Blue Ridge Parkway, administered by the National Park Service, passes through much of the George Washington National Forest. The Forest Service has a cooperative agreement with the National Park Service to manage the national forest lands so that the vistas and areas adjacent to the Parkway may be kept attractive.

The Appalachian Trail, from Maine to Georgia, enters the George Washington Forest from the Shenandoah National Park at Waynesboro and continues southward over Priest, Rocky, and Bluff Mountains. It then enters the Jefferson south of Wytheville and follows the Blue Ridge to the Virginia-Tennessee line. Forest Service men work closely with local Trail Clubs and the Appalachian Trail Conference in maintaining this famous foot trail. Forest management of adjacent lands is coordinated with all the recreation aspects of the Trail.

The national forests provide the habitat for much of the big game in the United States, and also include 81,000 miles of fishing streams and 2-1/4 million acres of fishing lakes. State game and fish laws apply on the national forests; the taking of game or fish must be in accordance

(Continued on page 12)



But Best I Remember Butch

By

DR. FRANKLIN A. TYLER

I NEVER thought I'd cry over a dog, but tonight I feel lower than a snake's belly. For tonight I put my best friend to sleep. My best friend and constant companion for the last 14 years was a dog named Butch. Just an ordinary darn dog — he wasn't even a bird dog. Now, sitting here alone with my glasses misted, I can't stop thinking about him.

We didn't buy Butch, nor was he a gift. One of my kids just found him on his way to school. He was only a pup then, and he'd been abandoned on a street car. We thought he was just a mutt until one day a stranger stopped me on the street and told me he was a typical English sheep dog.

In the beginning strangers seem to have appreciated him more than I did. I recall the words of the post vet at Fort Lee who gave him the once-over and some courtesy shots. "Colonel, I have an animal hospital back

home and I know dogs," he said. "You will get a lot of pleasure from owning this dog."

He sure was right. For Butch very quickly became a member of the family, so much so that his likeness appeared on our Christmas cards three different times no less — and always ranking me.

We had some wonderful times together, Butch and I. I can remember many weekends at my cabin in the backwoods; and many fishing trips he accompanied me on (barking at landed fish but staying put); and hunting and camping and hiking expeditions. I know I spent countless contented hours with Butch as my only companion. And a fine companion he was, too.

Putting Butch to sleep was no fun, but it had to be done. His old age, blindness, sudden deafness — all signs of senility — plus a possible melanoma made that necessary. Looking back, it seems that I always was elected to

perform this particular brand of dirty work. As I sit here grieving over Butch I remember other fine dogs that I also had to put away.

One in particular I remember — one who, as a matter of fact, saved my life. That happened a long time ago when I was a little boy. My grandfather always had fine hunting dogs on his plantation in Powhatan. This one, a Gordon setter named Don, had been salvaged from a wild litter living back of the garden under a pile of butter bean poles. He never did entirely outgrow his wildness; and though he loved to be petted he always crouched low on the ground whenever anyone tried to touch him. And he never could be induced to come in the house. In the field he did everything well, and he and I spent a lot of time together and became good friends. When an enraged sow, whose litter I had been teasing, charged me it was Don who came to my rescue. In the nick of time he sailed into that sow, bit her in the flank, and held on until help finally arrived. No, I'll never forget Don.

I remember too old Bert, a pretty English setter. Though he was a splendid hunter, he was not too highly regarded by some because of his peculiar habit of burying a killed bird if it were not quickly located. He was such an excellent hunting companion that I used to take him with me in my old model T Ford years after he was too old to stand a real hunt. His ecstatic pleasure at being allowed to sniff the game as each bird was taken from the hunting coats at the end of the day was something to see. And he could be trusted not to eat a bird on the seat beside him. I remember too his last hunt when he hobbled around enough to point two singles which my brother shot. He found each, and then rode proudly back to the house with the birds beside him on the back seat of that old model T. I am sure that in the Valhalla where all good bird dogs must assemble at last, old Bert drowses now before a mystical fire place musing on a lovely last hunt.

Then there was Romine, another Gordon setter like Don. He was a dog who really liked people better than he did other dogs. A superior retriever, he insisted on credit and commendation for every bird he found. I have a specially soft spot in my heart for old Romine because he shared my dad's last days. He was also a close companion of my medic brother when he started practice in the Northern Neck of Virginia. He was a good dog, — smart, clean, affectionate and loyal. Once he entered a voting precinct in Powhatan and the judge

said to the amused group there, "Gentlemen, many have voted here today who have less sense than Romine."

Then finally there was Butch. Although he was a wonderful dog, he was by no means a paragon. "That darn dog," I was always saying. Like for instance the time I got a call from a downtown hotel at 1:30 a.m., "Doctor, your dog is in the middle of our ballroom floor and a dance is in progress." Or all the times he'd come galloping home triumphantly carrying in his mouth a silk pillow, or an unmarked bedding role or a nice grey sweater. To the amusement of the neighbors (and our chagrin) we were almost never able to find the owners. —Once he bit the postman and temporarily lost the freedom of the streets by order of the city postmaster. But, since the postman was the only person he ever did bite, we have always suspected that perhaps he deserved being bitten.

Maybe he wasn't brilliant exactly, but he was smart. I recall his uncanny ability in finding his way around a big city. Sometimes I'd run into him at the U.S.O., miles from our home, but by dark he'd always be back where he belonged. He was friendly, he liked to play with the service men and they liked to play with him too. But primarily Butch was my dog. He could bring me my slippers or the newspaper, and would do so whenever asked. He could also shake hands. Those three were his only tricks and he was inordinately proud of them, always expecting (and getting) applause after he'd performed them.

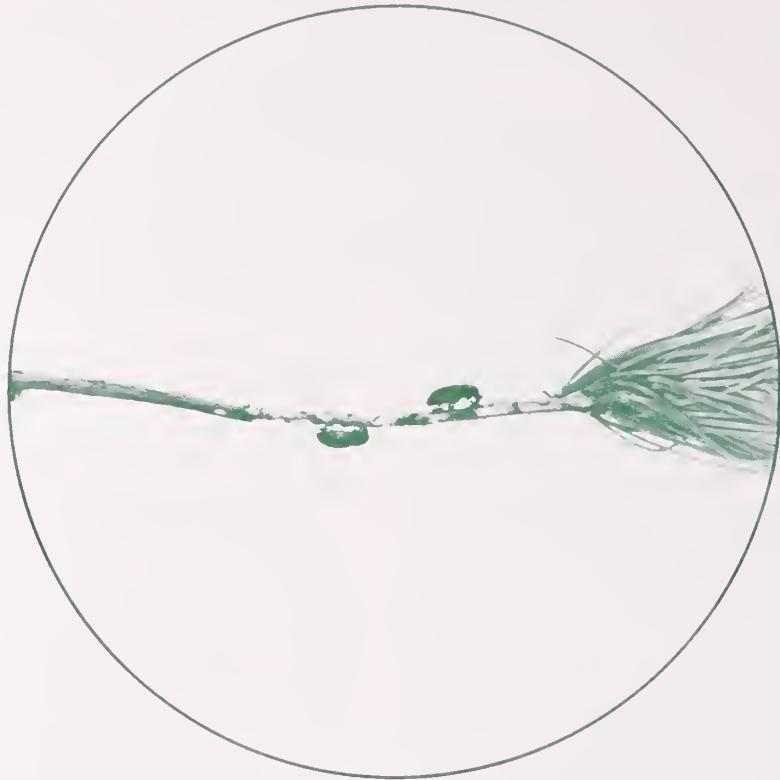
As I sit here tonight, brooding and lonely, my eye happens to fall on something that has been hanging on my wall a long time. It is a framed copy of Attorney Vest's speech in a trial in Warrensburg, Missouri in 1870, "A MAN'S BEST FRIEND IS A DOG."

"When all other friends desert, he remains. If riches take wing and reputation falls to pieces, he is as constant in his love as the sun in its journey through the heavens. If misfortune drives the master forth an outcast into the world, friendless and homeless, the faithful dog asks no higher privilege than that of accompanying him to guard against danger, to fight against his enemies. And when the last scene of all comes and death takes away the master in its embrace, and his body is laid away in the cold ground, no matter if all other friends pursue their way, there by the graveside will the noble dog be found, his head between his paws, his eyes sad, but open in alert watchfulness... faithful and true, even in death."

Yes, something went when that shaggy old Butch passed on — and the darn dog wasn't even a hunting dog either.

ARTHUR GODFREY PUBLICITY POTENT

When Arthur Godfrey gave *Virginia Wildlife* a plug on his weekly television show last month he started things apopping for this magazine's circulation department. Since his telecast, requests for subscriptions have been coming in from such far-distant states as Maine, New Mexico, California and Oregon. Sportsmen and wildlife enthusiasts from nearer states too have become interested to the extent of wanting to have a look because they heard Godfrey praise the magazine on his show. Subscription requests have been received from Illinois, New Hampshire, New York, Pennsylvania, Ohio, Kansas, Maryland, North Carolina, South Carolina, New Jersey and Connecticut.



These Bugs Around Us

By C. L. MORRIS

*Forest Insect & Disease Investigations
Virginia Division of Forestry*

Virginia Division of Forestry Photos

JUST as the Hamlineans once had increasing trouble with rats and reached immortality at the expense of their offspring spirited off in the course of their control program, so we seem to be confronted with new insect and disease problems almost daily in this business of agriculture and forestry. Not having a suitable "piper" to assist us in pest control, we have come to depend on the laboratories to provide us with suitable chemical control materials.

When the farmer's conversation turns to the conditions of his crop and the mounting horde of pests which plague those crops, his comments often include the belief that crop pests seem to be on the increase. He may recall that his father and perhaps his grandfather never had such difficulties.

The management practices of modern farming have been instrumental in changing the environment in which our present day pests find themselves. Fifty years ago, although there was more acreage under cultivation, the farms were small and the crops on each farm widely diversified. Today farms have become larger, often devoted to only one or two main crops, and as a result, more

subject to extensive damage by insects and diseases. With forest management practices becoming more intensive, a similar problem may well face the forest managers of the future.

So much for the agricultural crop situation. Let's turn our attention now to the problem of forest pest control.

Pest control research workers in agriculture turned years ago to a progressive "crop breeding" program to supplement the control of pests by such direct means as chemical sprays. Their efforts have been blessed with considerable success. Although similar programs of tree breeding have been in progress for decades in many of the European countries, added emphasis to such a program here in the U. S. has been of more recent origin. Breeding disease and insect-resistant varieties of trees is a long-term project (as compared with agricultural crop breeding) and although some end results are evident today, such as the introduction of a blight-resistant chestnut hybrid which promises to grow to a timber-producing tree and the introduction of wilt-resistant mimosas for ornamental planting, the road to success is a

long one. In the meanwhile, we have turned to more expedient direct control measures.

The past ten years has witnessed beginnings of concentrated efforts on a large scale to control serious outbreaks of forest pests. Aerial spraying over thousands of acres for control of the gypsy moth in New England, Pennsylvania and Michigan; the spruce budworm in Canada; and the individual treatment of over a million trees infested with bark beetles in the West are outstanding examples of the effective use of aircraft and of recently developed insecticides.

The timely applications of insecticides to control outbreaks of forest pests has become practical in recent years for several reasons. The value of wood products has increased considerably, allowing more money to be expended for forest protection. Secondly, the tremendous and immediate losses caused by forest insects is beginning to be fully realized. In the recently published "Timber Resource Review" by the U. S. Forest Service, it has been estimated that forest insects killed seven times as much sawtimber as fire in 1952 and disease three times as much. Concentrated attention to reducing this damage seems only logical.

Here in Virginia there are several forest pests presently active. The southern pine bark beetle has caused the death of many thousands of pines in the last years over a widespread area in southern and central Virginia. This insect has a long history of periodic outbreaks in the state and most often becomes destructive following periods of drought. Effective control of this insect pest hinges on immediate salvage, removal or spraying of infested trees. Beetle-killed trees should be processed im-



Bark beetles have killed thousands of pines in south central Virginia since 1952.

mediately at the pulp mill or the sawmill and the slabs of bark burned to kill beetles still present which could emerge and attack trees in the vicinity of the mill.

The second pest of potential importance to the hard-wood forests of Virginia and of particular interest to the sportsman is the oak wilt disease.

No disease since the chestnut blight has received such nationwide attention. Wood-producing industries have contributed large amounts of money to support research on this disease. All eastern states in which the disease is known to be present (including Virginia, West Virginia, Tennessee, North Carolina and Maryland) are supporting survey and control programs to keep this virulent fungus from becoming widespread. Although it is not anticipated that oak wilt will spread through our oak forests, killing trees as rapidly as the chestnut blight did the chestnut, the long-term ravages of oak wilt can be readily seen in the forests of Wisconsin, where occasionally all oaks in areas as large as 100 acres have been killed.

Another forest pest, although less spectacular than the bark beetles and oak wilt, is currently attracting attention here in Virginia. It is the Pales (or pine reproduction) weevil. This beetle, which spends most of its life in recently cut pine stumps and in the stump area of recently dead and dying pines, emerges to feed extensively on seedling pines and the branches and twigs of young pines up to eight feet tall. Large numbers of seedlings—planted or natural—are usually killed outright.

Our forest trees, then, from the time they begin life from the germinating seed, are constantly subject to attack by various insects and diseases. Inroads made by these pests are not considered serious until an individual pest becomes epidemic and kills or seriously weakens a large number of trees in a small area. At this point the landowner and the Virginia Division of Forestry are both directly concerned.

The Division of Forestry is responsible (by act of the 1952 General Assembly) for conducting surveys for and



Oak wilt, a fungus disease, poses a potential threat to the extensive oak forests of Virginia.

reporting to the forest landowners of Virginia outbreaks of forest pests. Furthermore, the Division will assist landowners confronted with forest pest problems with technical advice on practical control measures.

You, the sportsman, can assist us by reporting suspected damage by forest pests to the district forester or county chief forest warden, the county agent or to the Division of Forestry headquarters in Charlottesville.

NATIONAL FORESTS (*Continued from page 7*)

with state law. The Forest Service cooperates closely with State Fish and Game officials in wildlife habitat improvement work, and manages other resources with the wildlife interests in mind.

One of the country's outstanding cooperative wildlife management programs is that between the Virginia Commission of Game and Inland Fisheries and the George Washington and Jefferson Forests.

When these national forests were established in Virginia, the State Fish and Game Department was engaged in closely related efforts to build back the wildlife resources which had been seriously depleted, along with forests. The two groups had common interests and, by the late twenties, were cooperating in efforts to restore deer and other wildlife to the mountain counties which now coincide with the national forests. This work was intensified with the creation of the present Commission of Game and Inland Fisheries. During the depression years the State, the Forest Service, and local sportsmen often pooled funds and equipment to purchase and liberate deer for restocking purposes. Much of Virginia's big-game resource west of the Blue Ridge can be traced to these efforts.

By 1938 the pattern of cooperative operation had become firmly established and a formal agreement of mutual interest was prepared and signed. Virginia became the first State to require a special stamp to hunt, trap, and fish on national forests. The stamp funds received were earmarked to carry on wildlife habitat development. The revenue from these stamps has shown a steady increase throughout the years, and it has financed an aggressive program of wildlife habitat improvement and public education.

The Virginia cooperative program stemmed from the basic concept that wildlife is a product of the land and that control of the harvest and control of the environment are the two major implements by which the wildlife resource may be managed. This program has been greatly enhanced through Federal aid under the Pittman-Robertson and Dingell-Johnson Acts, which also brought the Fish and Wildlife Service into the program as a collaborator.

The success of the Virginia cooperative program in restoring wildlife and improving habitat conditions is amply demonstrated by the record of accomplishment. Forestry and game administrators now realize that the

program can be of equal or greater value in charting the course for future wildlife development. Through joint action by the Game Commission and the Forest Service, conscious efforts are being made to shape the forests as future hunting and fishing grounds for the expanding population of Virginia and the adjacent urban areas.

In Virginia and elsewhere, wildlife can be helped by coordination of forest uses and activities. Through the development of access roads, forest hunting and fishing areas are being made accessible. By the application of sound engineering, the destructive effects of erosion from roads and other improvements are being held to a minimum. By planning timber sales on a rotation basis, continuous supplies of browse are made available for use by deer and other animals. The whole pattern of sustained yield as applied to forestry is designed at the same time to benefit wildlife. The long-range results of this cooperative planning for action by the State Game and Fish Commissions and the Forest Service are to insure future hunting and fishing grounds for coming generations.

The Forest Service is proud of the George Washington and Jefferson National Forests in the Old Dominion, and it values the cooperation which Virginians have given in its work. Undoubtedly these national forests will continue to contribute materially to the wealth, happiness, and welfare of the Commonwealth by providing natural resources, protected watersheds, and recreation areas for the citizens of Virginia and their guests from all over the United States.

Birds of Prey on Our Side

Hawks, eagles and owls do a helpful exterminating job for the farmer by dining upon such fast-breeding pests as rats, mice and gophers. Hawks also eat destructive insects, specially grasshoppers. The small sparrow hawk, in fact, eats more bugs than anything else.

Although these predatory birds are commonly labeled "bad," they actually do more good than they do harm, according to Biologist Wayne H. Bohl of New Mexico. Because sportsmen have occasionally seen a hawk attack and eat a quail they often jump to the conclusion that hawks are seriously decreasing the numbers of that popular game bird. But this is not true. A healthy game bird, Mr. Bohl says, has little difficulty avoiding the birds of prey.

To eliminate the promiscuous shooting of hawks, eagles and owls the National Audubon Society is sponsoring a bill permitting landowners (and only landowners) to destroy a bird of prey if he is doing real damage to his land or domestic stock. This does not of course include the bald eagle, our national symbol, which is protected by Federal law and may not be destroyed under any circumstances.

NINTH ANNUAL WILDLIFE ESSAY CONTEST WINNERS

Commissioner Thomas G. Herring, at ceremonies in the Capitol at Richmond on April 27 presented Ralph K. Steckler of Spotsylvania High School, Spotsylvania, Virginia, with a \$400 college scholarship for his essay judged the best in the state for a high school senior in the ninth annual wildlife essay contest.

The commissioner also presented \$50 grand prizes to the following eight students in grades 12 to 5 respectively: Bob Hicks, Valley High School, Bath County; Nancy Kate Givens, Newport High School, Giles County; Patricia Wright, Blacksburg High School, Montgomery County; William James Lawrence, Lee Junior High School, Roanoke City; David Dietz, E. C. Glass High School, Lynchburg City; Douglas Jordan, Sandy Hook School, Goochland County; William Gilbert, Stony Creek High School, Sussex County; and Beverley Waddill Carter, Battlefield Park School, Hanover County.

Eight second prizes of \$25 each went to Charles Allen Tanner, E. C. Glass High School, Lynchburg City; Martha Ann Bond, Hillsville High School, Carroll County; Lee Gildea Jr., Lane High School, Charlottesville City; John F. Green, Midway High School, Dinwiddie County; Eugene Johnson, Buchanan High School, Botetourt County; Darrell Dalkin, George Mason School, Alexandria City; Donna Haynes, King William School, King William County; and Bryan Chaudler, Washington and Lee School, Westmoreland County.

Eight third prizes of \$15 each were awarded to Ada Ruth Osborne, Independence High School, Grayson County; Sandra Lea Elliott, Marriott School, King and Queen County; Anne Roe Berger, Climax School, Pennsylvania County; Lillian Rolston, Wilson Memorial High School, Augusta County; Vin Plumley, Potomac School, Fairfax County; Sawrie Carroll, Scottsville High School, Albemarle County; Jimmy Ritsch, Jeter School, Covington City; Sharon Burr, Thomas Jefferson School, Augusta County.

The sixteen who received the \$10 honorable mention awards were Emory S. Waldrep Jr., Bluestone High School, Mecklenburg County; James Clifton Boger, Boonsboro High School, Bedford County; Ricky Ratcliffe, Osbourne High School, Prince William County; L. B. Towle, Bland High School, Bland County; Berniece Wilbun, York High School, York County; Marye

Earle Carmine, Onancock High School, Accomack County; Walter Sprinkle, Marion High School, Smyth County; Warren Nichols, Randolph Henry High School, Charlotte County; Lloyd Elliott, Caroline High School, Caroline County; Jeanne Ramsey, Big Island High School, Bedford County; Janet Moore, Newport News High School, Newport News City; Barbara Rae Yancy, Farmville Elementary School, Prince Edward County; Barbara Sawyer, Thomas Jefferson Grammar School, Augusta County; Mary Catherine Ware, Hilton Elementary School, Warwick County; Betty Jones, Jackson-Wilson School, Augusta County; and Kay Courtney, Tappahannock High School, Essex County.

Sixteen other special mention prizes of \$5 each were awarded to the following: Rhoda Marie Moyer, James Blair High School, James City County; Shirley Allgood, Park View School, Mecklenburg County; Donnie Wayne Petty, Buchanan High School, Botetourt County; Warren Sullivan, James Monroe High School, Fredericksburg City; Charles Turner, Laurel Fork Junior High School, Carroll County; Carole Sandy, Warsaw High School, Richmond County; Elizabeth Ann Young, Brunswick High School, Brunswick County; Barbara Maxfield, Dryden High School, Lee County; June Wimmer, Lee Junior High School, Roanoke City; Jimmy Fultz, North River High School, Augusta County; Nancy Elizabeth Allin, Warsaw High School, Richmond County; Harry Shirley Powell, Oak Grove High School, Westmoreland County; Iva Marine Blackwedler, Alexander Park Elementary School, Norfolk County; Shannon Barker, Alexander Park Elementary School, Norfolk County; Elsie Cox, Meadows of Dan School, Patrick County; and Carol Boblett, Buchanan Elementary School, Botetourt County.

Because two schools tied, both having 100% participation, a \$40 school award was given to both of them. The two winning schools were Henry Clay Elementary School, Hanover County, Mr. W. N. Taylor, principal; and La Crosse Elementary School, Mecklenburg County, Mr. Frank S. Hassell Jr., principal.

In addition to the \$1440 cash awards, recognition was also given to other students who had written essays of outstanding merit. Engraved certificates were sent out to 240 students in every part of the state.



Claytor Lake on the New River in Pulaski County is fine wall-eye, bass and crappie water.



The James River which flows across most of Virginia is a noted smallmouth bass stream. Each year large fish are taken from this stream. The Jackson River is equally as good for fishing in areas where pollution is curbed.



White Top Laurel in Washington County is one of the state's largest trout streams. It is ideal water for fly and spin fishermen.



Holston Lake, an artificial impoundment on the Holston River in Washington County, is productive for bass, sunfish and crappie.



In Mecklenburg County, Bugs Island Lake is developing into a fishing hot spot that can stand plenty of fishing pressure.

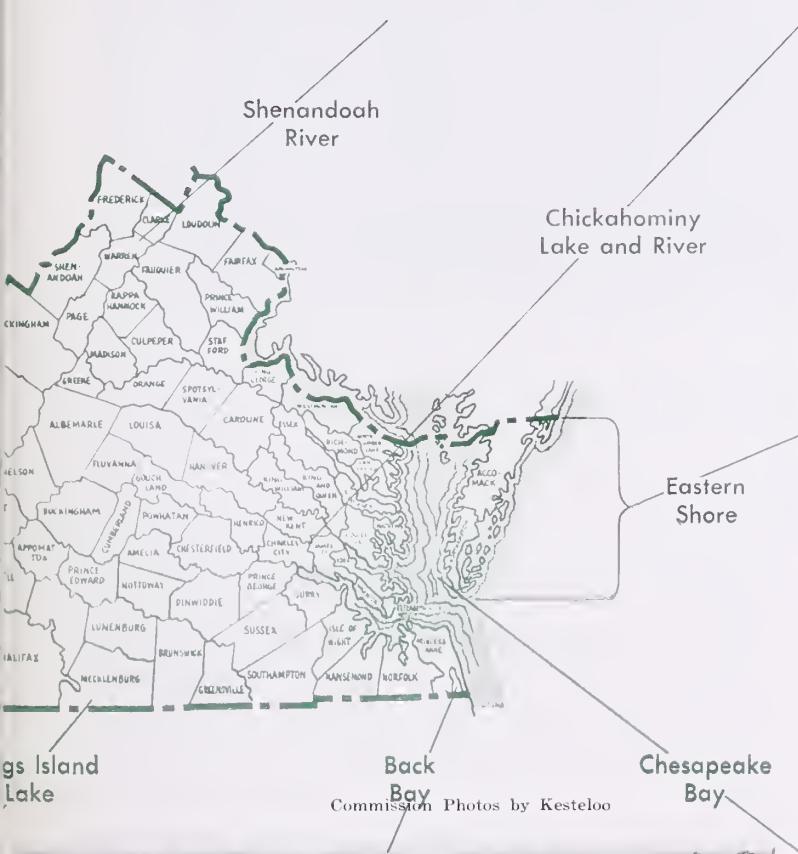
VIRGINIA'S TEN F



Two fishermen trying for suckers on the Shenandoah River. This early spring fishing is often chilling and a fire is welcome.



Bass fishing on the Chickahominy is well known to many Virginians. There is a treat in store for those who haven't tried fishing here.



Back Bay has been a fabulous largemouth fishing spot in Virginia for decades. This large area is never crowded with fishermen.



Virginia's eastern shore is widely known for its excellent salt water fishing. Channel bass get plenty of attention from anglers fishing from boats or from the surf.



Virginia's Chesapeake Bay is a deluxe fishing ground for both commercial and sport saltwater fishermen. The cobia is a popular species.

SHING HOT SPOTS



Virginia has been in the serious business of raising trout for 26 years. With constantly increasing fishing pressure, it was either hatchery trout or no trout fishing in Virginia.

Is The Trout Fisherman Paying His Way

By T. D. WATKINS
Commissioner, Third District

LAST month we discussed in a general way several aspects of our Virginia trout program and promised our readers we'd have more to say on the subject in this issue. Mostly we want to discuss facts and answer, if we can, the big question, *is the trout fisherman paying his way in Virginia?*

Please note we said *trout fisherman in Virginia*, by which we should include *all* anglers who fish for trout—statewide licensees, non-residents, and county licensees. Since we have all three classes of fishermen, it is only proper that any discussion of costs with regard to trout should include a review of each.

Before we do this, let's look again at the over-all trout program, where we are, how we get the trout, and the like. Then we'll get into the matter of fishing, or harvesting as the biologists like to call it, and put the fine magnifying glass on the records and determine who pays for what.

Virginia has been in the serious business of raising trout, as we said last month, for about 26 years. Like most states, increasing fishing pressure directed us into the program. It was either hatchery trout to take care of the increased fishing pressure, or no trout fishing—at least none to speak of. Virginia trout streams carrying native brook (speckled) number just so many and no more. Native trout alone were not present in enough

quantity to take care of the growing numbers of trout fishermen.

Seeing the situation clearly, the Commission under A. Willis Robertson, its first chairman, employed G. W. Buller in 1930 to begin an expanded hatchery program for Virginia. Mr. Buller, an experienced and able fish culturist, came to Virginia from Pennsylvania, where he had acquired a skilled working knowledge of hatchery operations, and soon developed for the state a remarkable trout raising and restocking program.

It did not develop overnight and there were trying financial days. One by one, however, fish hatcheries were constructed and a remarkable system of trout propagation was worked out. The main hatchery for trout was established at Marion, in Smyth County, followed by a rearing station at Montebello in Nelson County. In recent years the Buller Hatchery was established also in Smyth and, while it was established primarily for the raising of smallmouth bass, some sections are also reserved for trout rearing.

According to the estimates at the hatcheries at loading time, roughly 400,000 trout will be released by Virginia hatcheries this year—all two-year-old speckled trout and rainbow trout. The raising of one-year-old fish was tried, but sportsmen kept asking for more and bigger fish until the Commission ceased raising one-year-olds entirely and

began the reluctant, more costly task of raising strictly two-year-olds.

During the past five years the Virginia Game Commission raised and liberated 1,331,085 two-year-old trout at a cost of \$530,678 or an estimated cost of 40 cents per fish at the time of loading. The figure is based on the original costs of the hatcheries involved, amortized over a period of 30 years, cost of food, operation, labor, etc. (These figures and others used in this article are based upon the disbursement of funds up to and including the fiscal year ending June 30, 1956.)

To get the fish from the hatcheries to the streams and eventually into the fisherman's creel, allowing for natural losses, poaching, etc., amounts to another 10 cents, or a total of 50 cents a fish in the creel. This is estimated, of course, and is based upon only very rudimentary creel checks during the opening days of the trout season. Many more checks are needed to get a really reliable figure. Many feel that the cost to the fisherman approaches an even dollar bill. On this, of course, we can't argue because we don't know and won't know until better figures are obtained. This year real effort will be made to get accurate creel census data throughout the season.

So, based on what we know this far, let's see if the trout fishermen are paying their way.

The Statewide Trout Fisherman

The man who loves to trout fish statewide is required to buy a \$3 state fishing license. How much of this goes to the fish division and how much of this slice goes for paying for the trout program?

Of the \$3 fishing license, only \$1.45 goes to the fish division, the remainder being earmarked for the law enforcement, administrative, and education divisions. So the statewide trout fisherman, through his \$3 license, actually only pays for three trout.

If he takes eight fish a day at 50 cents apiece, the first day alone he has received \$4 worth of fish or \$2.55 more than he's paying for.

If he goes on other days and catches more fish, well, he's just getting that many more fish free.

It is true, on national forest lands an extra dollar stamp fee is charged for hunting and fishing, but only a small part of this stamp money goes for trout propagation and the rest goes toward law enforcement in patrolling of the streams by the game managers.

The Non-Resident

Now what about the outsider, the non-resident? How much of the trout bill does he pay? His fee is \$10. If we use the same breakdown figures as for the statewide license, then his actual contribution to the fish fund is \$4.73. Naturally he pays a little better than the state man, but beyond his ten fish, he still gets them for nothing.

County Trout Fisherman

Lastly comes the county resident who buys a \$1 hunting and fishing license and trout fishes in his county. How does he stack up with the other two? Without meaning to be ridiculous about it, let's just break down the sportsman's dollar for the fun of it. Of the \$1, 10 $\frac{1}{4}$ cents goes to the fish division. At 50 cents a trout, our county trout fisherman is only paying for slightly over 1/5 of one fish. Once he even takes a single fish then he's in the "free trout" class.

How many county trout fishermen do we have? There's no telling because we don't have the fishermen broken down. Last year there were 222,116 county licenses sold and it is assumed that perhaps half were trout fishermen. If the county man buys the national forest stamp for a dollar, he's doing a little better but it's still far from paying for *even one half of a single fish!*

Obviously then, if our figures are reasonably accurate no present-day trout fisherman pays for his sport—not by a long run. If you're successful, no matter who you are—county resident, non-resident state, or state resident—you're not paying your share of the trout program. The reason it carries on is that someone who doesn't trout fish and the many who never catch a single fish, or maybe one or two, are paying for the program.

And perhaps no trout fisherman can ever pay his full way in a public program—but surely those who want a hatchery program should be willing to do more to carry the trout costs.

There are some remedies and there are ways of improving the trout program. Angling for sport and not meat, a separate statewide trout license, stocking only in closed areas, lower creel limits, the use of artificial lures, stream classification, etc., hold some promise. We'll discuss some of these next month.

NO ELBOW ROOM IN THEM THAR TROUT STREAMS

The gurgling streams and rushing brooks in the state's wildest and most distant points were densely populated on May 1st, opening day of the trout season. Cars lined both sides of usually empty backroads, and late comers had a tough time finding a cranny in which to park. At some streams there were so many anxious anglers crowding the banks that at twelve noon, the official opening moment, the game wardens fired their guns. — And then, immediately, everyone started casting at once.

"It was just like Times Square," said one disappointed sportsman. "I'd have had a better chance for a little contemplative solitude and put a heck of a lot less mileage on my car if I had stayed in my own backyard and dug for fishing worms — or retired to my den with a copy of "The Compleat Angler."



POISON IVY



POISON OAK



POISON SUMAC

NEO SMITH

Poison ivy, poison oak and poison sumac abound and thrive in this country.

It pays to

BEWARE OF POISON IVY

By

GERTRUDE CURTLER

Editorial Assistant

POISON IVY is to the out of doors what the common cold is to medicine. A great deal is said about it, most of us become victims of it sooner or later, and there is little that we can do about it. Three centuries of scientific progress in this country have failed to turn up a way of eliminating it or its effects on the human skin.

This pretty three-leaved vine or shrub is doubly dangerous. It is dangerous because of its extreme prevalence, and also because of its extreme potency. Even if you touch something which has touched poison ivy you are likely to become afflicted with the itchy red skin rash it causes. The toxic agent is a phenolic substance called urushiol which is said to be non-volatile. However, minute particles of this urushiol can be carried by smoke of burning poison ivy and severe cases can be caught that way. Urushiol is found in all parts of the plant including roots and fruit. It occurs in great abundance in the plant sap, which is the reason why the danger of being

poisoned is greatest in the spring and summer — and least in the fall and winter.

Poison ivy in its various forms grows lushly and profusely over the entire country except the far west, and there they have its first cousin, western poison oak (*Rhus diversiloba*). Oddly enough, America is the only country in which it does grow. Here in the Southeast, besides poison ivy itself, we have poison oak (*Rhus Toxicodendron*) which like poison ivy grows in clusters of threes; and also poison sumac (*Rhus vernix*) which has compound leaves consisting of six leaflets and is distinguished from non-poisonous sumac by its absence of a terminal fruiting spike. True poison ivy (*Rhus radicans*) is hardy, perennial, prolific and ubiquitous and grows also as a bush. It thrives in the woods where soil moisture is plentiful and also on exposed hillsides where the soil could scarcely be drier. It is most frequently encountered along old fence rows, the edges of paths and roadways, rambling over rocks and walls and climbing up trees and posts. You will find it too in urban areas — in

vacant lots, in gardens mixed with other shrubs and even climbing up the side of your house!

Like a soft, fury pussy-cat with sheathed claws, it looks utterly harmless and innocent. Indeed, it is an attractive and highly decorative vine. It is not easy to identify because the shape of its leaves vary from one variety to another, and there may even be differently shaped leaves on the same plant. It is often confused with two non-poisonous plants — Virginia creeper, which has five leaves; and Boston ivy, which like poison ivy, has only three. Since it is hard to spot it is wise to heed the old adage, "Leaflets three, let it be." Another way of protecting yourself is by studying pictures of it, such as the ones on page 18. Then, when next you go out doors, look for it. It won't be hard to find. Once you've found it, take a good long look at it (with your hands behind your back) so that next time you can give it a wide berth. But, even after you've learned to recognize it, it is a good idea not to sit upon, brush against or idly pull *any* unidentified vine or bush. And always make sure there is no poison ivy in your camp fire.

Although it is commonly regarded as an unpleasant nuisance, don't forget that it does have compensatory wildlife value. Its fruits, specially in winter when other food is scarce, are enjoyed by many birds including quail, grouse, flickers and other members of the woodpecker group. Also, its thick tangle of underbrush furnishes excellent cover for little animals. Song birds nest in it, and it provides snug homes too for skunks, weasels and rabbits. This being true, it is unnecessary and even harmful to try to remove it from fields or areas away from the house.

There are two ways to cut down on poisoning from poison ivy. One is to train yourself to recognize it and then always be on the alert for it. And two, you can eradicate it from your own backyard.

That is a ticklish proposition, but it can be done. The best method is to apply one of the chemical herbicides which kill all the leaves and 90% of the roots. But when poison ivy is growing among other shrubs or up a tree the only thing is to pull it out by hand or with a garden tool. In that case, gauntleted gloves as well as a long-sleeved shirt should be worn; and afterwards your clothes should be washed thoroughly several times with an alkali soap. Mowing keeps ivy down, but has to be done repeatedly to be effective. Plowing too is not helpful unless it is followed by persistent stirring with a cultivator or harrow to keep all roots loosened from soil. Otherwise it merely propagates the weed. Likewise, mowing with a scythe or sickle is ineffective unless frequently repeated. Weed burners are good only if properly used. If the flame is held on the plant until leaves and stems are completely incinerated the roots are not injured, and new leafy shoots soon develop. What you should do is sear the plants by passing the flame slowly over the vine just long enough to wilt the leaves but not burn them. Three to four such searings will usually kill the roots. *Never attempt to get rid of poison ivy by burning it* because, as stated before, minute particles of the toxic agent can be carried and spread by the smoke.

If you know that you have come in contact with poison ivy, or smoke from burning poison ivy, and if you are less than five minutes away from a cake of strong alkali soap, you can avert or drastically reduce the rash by immediately soaping the exposed area. After five minutes the sap has dried onto your skin and cannot be washed off.

The first sign of the poison is a red itching skin; later there appear small postules filled with watery fluid. That condition may continue for a week from a single contamination. Persistence of those symptoms over a longer period indicates that the victim is still coming in contact with poison ivy or previously contaminated clothes or animals.

As yet there is no cure. According to the Virginia Health Department, some people have increased rather than alleviated the original harm with self-applied home remedies. It should always be remembered that poison ivy can be serious — even fatal — so all severe cases should be referred to a physician. However, in minor cases the itching can be somewhat relieved by such preparations as calamine lotion, wet dressings of mild salt solutions, milk of magnesia, Epsom salts or aluminum acetate. A research project now being conducted by Dr. Charles Dawson and his associates at Columbia University will, it is hoped, eventually unearth an effective cure. It will be fine when they do because right now people are spending an astounding amount of money on remedies which do little or no good.

Because poison ivy is so vicious and toxic, properties which it does not actually possess have been attributed to it. For instance, it is not true that it exudes poisonous vapors. That "old wives' tale" has probably come into being because people can and do get severe cases from indirect contact, and because the poison retains its potency for months. Dogs, who are themselves immune, pick up the plant's secretion on their hair and transfer it to people who pat them. Or someone might sit down on a sofa or a bench on which a carrier-dog had been and contract the skin rash. Another way it is often caught is by changing with bare hands a tire which has run over the plant. So virulent is it that it can cause a rash even when diluted a million times!

In the hopes of building up a resistance to it some doctors have given their patients small doses of pure ivy extract; but the Virginia Health Department says that they "do not know just how effective injections have been." Apparently that treatment is no more successful than is the unenlightened layman's similar one of eating an ivy leaf in order to gain immunity. That, of course, is perilously absurd as it could cause internal poisoning.

Some people say blandly, "Oh poison ivy doesn't bother me, I never catch it." They are both lucky and ignorant. For, although they may never have been sensitive to it before, they could easily come down with a bad case of it this month or next. Susceptibility is created by frequent contacts with the poison and nobody can tell how many times he may have been indirectly exposed.

No, don't stay indoors because of poison ivy. But do always be on your guard against it. It pays.

IN DEFENSE OF THE PICKEREL

By

ROBERT C. MARTIN
Assistant Chief, Fish Division



THREE is no getting around the fact that the chain pickerel is a cannibal. Not only does it eat its own brothers and sisters, but it will also devour almost any other fish which comes within its range. It starts eating other fish when it is less than three inches long. From maturity on, its appetite appears to be enormous; and there are few fish that are either too small or too large for its voracious jaws.

Since its carnivorous habits are readily apparent, fishermen are quick to condemn the pickerel for depleting their favorite "fishing hole" of all desirable fish. However, recent investigational work by the Commission of Game and Inland Fisheries has indicated that fishermen should cast a second glance before blindly condemning the pickerel.

In fact, among the ponds studied thus far, the pickerel has assumed a star's role in maintaining an adequate balance between predator and prey species. In comparing ponds containing bass as the only predator with ponds supporting both bass and pickerel as predators, it was found that those ponds containing pickerel were usually in much better condition. This is not altogether surprising since the chief short-coming of most ponds investigated has been an over abundance of stunted pan-fishes such as bluegill and crappie. This condition is not

likely to occur if a well-established pickerel population is on the scene. The commission has recently instituted a project to determine the effect of experimental introductions of chain pickerel in over-populated farm ponds.

The pickerel's range in Virginia is somewhat spotty. Found primarily in eastern Virginia's coastal plain area, it is also found in many of the spring-fed mountain streams and ponds of the James and New River drainages where it is confined to the slow moving, heavily vegetated regions. It is conspicuous by its absence in most of the piedmont area. The rather heavy silt deposition and subsequent absence of aquatic vegetation common to the piedmont are thought to be the chief factors limiting its abundance in such areas. Clear, silt-free water, and plenty of aquatic vegetation seem to be necessary for successful establishment. It definitely has a wide tolerance of temperature ranges.

Its spawning period occurs in the spring, usually from March to April, depending upon the temperature of the water. The eggs are deposited without any prepared nest, among the weeds, brush or limbs in the shallow water near the shore. The eggs come forth in long strings, and the number may range from 1,500 to 3,000 depending on the size of the fish. The incubation period is about 15 days. (Continued on page 23)

Meadows

of

Dan

By JOE L. COGGIN



Commission Photos by Kesteloo

"Meadows of Dan," situated in southwest Virginia, is a happy hunting ground for hunters, fishermen, wildlife enthusiasts and sightseers.

THE DAN RIVER and its tributaries, plus scores of surrounding fertile meadows has been given the unique and appropriate name, "Meadows of Dan," and is a happy hunting ground for fishermen, hunters, wildlife enthusiasts and sightseers. The Pinnacles of Dan and also Mabry's Mill are here. Situated in southwest Virginia between the Blue Ridge Parkway and the North Carolina line, the Meadows of Dan have everything for vacationists — even including the traditional Lovers' Leap. The legend about that may be somewhat familiar (two Indian lovers are supposed to have locked arms and jumped to their deaths when their chief forbade their union) but there is nothing cliché about the view. No matter how many times one gazes at this panorama of distant valleys and mountain peaks and space, it is always different and always exhilarating.

The well-known Dan River is formed by cool mountain spring heads and many streams, also originating here, which flow into it. Throughout this entire expanse of mountainous terrain a network of streams amble through numerous meadows and between steep mountainsides and ravines.

This wooded mountainous terrain shades the water, and the fact that these streams flow over numerous rocky riffles — adding oxygen to their contents — works something like a giant air conditioning system. This cool water with high oxygen content makes the trout frisky even in hot July and August weather.

Which brings up the subject of trout fishing. For who could talk about mountain streams in Virginia without talking about trout fishing? Each year the Virginia Commission of Game and Inland Fisheries stocks the Dan River, near Meadows of Dan Post Office, and also two of its tributaries with brooks and rainbows. The two tributaries that are stocked with these species are Big Ivy at Vesta, and Round Meadow, about two and one half miles southwest of Meadows of Dan Post Office, running under the Blue Ridge Parkway. The number of fish released in these streams each year varies with the capacity of the stream and supply of trout available. Year after year these streams have drawn scores of fishermen to herald the opening day of the trout season.

The local tots usually receive their first lessons in catching fish at Cockram's Mill Pond. This is an excellent pond for sucker fishing and it has also been stocked with bass and bream. There are very few weekdays that you can pass this Dan River mill pond without seeing someone fishing, regardless of the time of year. When you get tired fishing for bass, bream or suckers, just start in below the dam and try for trout (if the season is open). There are about seven or eight miles of rugged but beautiful trout fishing and then it's bass, bream and crappie fishing again. At this point we come to what the local folk call "the upper dam" (Talbott Reservoir). This dam is about six miles from the Meadows of Dan Post Office if you travel by automobile.

Talking about automobiles, it is a good idea to use one to get to "the lower dam" (Townes Reservoir). The lower dam is approximately two and one half miles down the Dan River from the upper dam, and can be seen far below and a mile distant from the Pinnacle Lookout Point. Fishing is permitted in the Talbott Reservoir by permit issued by the City of Danville Electric Department, Municipal Building, or the hydroelectric station at Claudeville, Virginia.

From this lookout point can be seen the Pinnacles of Dan. One sharp-tipped conical pinnacle, jutting abruptly from the gorge below has the Appalachian Trail running over it. It is said that Daniel Boone explored this historic trail. If so, he certainly chose the most inaccessible route possible for traversing the Meadows of Dan country.

Livestock is one of the chief sources of livelihood for the people of the Meadows of Dan Country. This, of course, does not lend itself very well to an abundance of rabbits and quail. At the moment, the only remedy for this situation seems to be planting food and cover patches around the edges of fields and pastures, which is being done to some extent.

The wooded sections, however, abound in small animals. Suggest squirrel hunting to any resident and you have hit on the local hunting topic. As the novice fish-

erman gets his start in fishing by catching suckers in Cockram's mill pond, so the novice hunter gets his start in hunting by shooting grey squirrels almost in his back yard. The real test of his shooting skill comes when he tries his luck on the ruffed grouse which hide in the rhododendron thickets. After midsummer it is not unusual to see a hen grouse and her growing brood crossing some back road or trail off the beaten path. The ruffed grouse is a woodland dweller that is at home in this mountain country. The second growth hardwood forest with sunny openings and thick patches of mountain laurel, rhododendron and hemlock is an ideal situation for this popular game bird.

Too, acres have been stocked with wild turkeys and deer by the Virginia Commission of Game and Inland Fisheries: the Busted Rock section about three miles south of Vesta, and the vicinity of the Pinnacles of Dan. These two sections are characterized by exceedingly rugged mountain slopes covered by hardwoods and rhododendrons. It is difficult to predict when there will be a high enough turkey population to warrant an open season on wild turkeys. It is estimated, however, that deer will be hunted legally in the near future. These two species of animals will no doubt add to the material wealth of Meadows of Dan as well as to the color and grandeur of the countryside.

Probably no scenic spot in Virginia has attracted more sightseers, nor been photographed more, nor been the subject of more paintings, than Mabry's Mill. It is located about two miles north on the Blue Ridge Parkway, from the point where this view-studded road intersects Highway 58. For public sightseeing interest this antiquated corn mill has been restored by the Parkway authorities, and is now in actual production. The two original stones grind the corn. Power for the mill is obtained from the huge water wheel, which is doubtless the mill's most fascinating feature. People interested in corn meal ground by the old fashioned method can buy corn meal and buckwheat flour; or they can feast upon the local breakfast specialty — buckwheat cakes!



Mabry's Mill, restored and in actual use, is the subject of many paintings and photographs.



Wormy chestnut rail fences are still used in many areas enclosing the lush mountain meadows.



The Dan River, Big Ivy River and Round Meadow Creek, all picturesque streams, offer excellent trout fishing throughout the season.

During the coming spring and summer months the Blue Ridge Parkway will bring thousands of people through the Meadows of Dan Country; and each is sure to find much to interest him. Flowering plants may be found in a variety of species from the rare flame azalea and jack-in-the-pulpit to the more common mayapple and wild ginger. Spring and early summer is the best time



The meadows of Dan Country, with its inspiring rugged scenery, rich variety of animal life and good fishing, is ideal vacation country.

to see the floral beauty. Redbud and dogwood blossom time is spectacular.

Songbirds in variety are present throughout the summer and our more hardy resident birds linger throughout the season. This country, with its inspiring rugged scenery and rich variety of animals and good fishing in the cool clear mountain waters of the Dan, will thrill anyone who loves the out-of-doors.

THE PICKEREL (*Continued from page 20*)

A first cousin to the larger more spectacular northern pike and muskelunge, the chain pickerel is the only fishable member of the pike family which ranges as far south as Virginia. Another species, the red-fin or mud pickerel is also found in Virginia waters, but seldom reaches a length of over 12 to 14 inches. Chain pickerel, on the other hand, occasionally reach a length of 33 inches and a weight of over 6 lbs. in Virginia, but a 3 lb. pickerel is usually considered of trophy size. The official world's record is 10 lbs. 10 oz. and was caught in Quebec in 1935. Growth rate studies in Virginia have indicated that pickerel average 6, 11, 16, 19 inches respectively in length during their first 4 years.

A large variety of line and artificial baits attract it. Spoons with attached pork rinds or various fly and spinner combinations are popular. In spring and early summer surface plugs and popping bugs are also highly successful. Good live baits are minnows and frogs. In fact, according to some fishermen, the pickerel is a pretty indiscriminate fellow, and there are very few baits that he doesn't like. He has been known to strike at the silver paper off a cigarette package, a brass door knob or even a piece of torn white shirt.

He fights well when hooked, specially at or near the surface. However, he's not a showy fighter. Michael Crammond in his book, *Hunting and Fishing in North America*, says that it is the pickerel's nature "to hit the

lure or another fish with a Jack Dempsey-like haymaker that is intended to jar every bit of life out of a swimming creature. Woe to the fisherman who wraps a line around his finger or toe, then snoozes while the motor or rower of the boat cruises. There's no warning nibble. After the first two or three rushes, a pickerel sulks and heads for the reeds or some sunken snag. Pike seem to throw their heads down, just as a bronco throws its head up. The resultant weight on obstructed tackle often means a new rod, or at least a broken section." It is advisable never to underestimate the instinctive cunning of a pickerel and always to be ready for that last unexpected dash for freedom. They are apt to come in with hardly any fight, then just as you are about to reach down and grab them, they suddenly dash under your boat.

Another important point in favor of the pickerel is the fact that it is usually well-received when it arrives ultimately on your dining table. Although it is bony, its flesh is of good texture and when properly cooked there are few dishes that can beat it. One good way to cook it is to fillet it lengthwise, sprinkle it lightly with corn meal, then fry it until golden brown in not too hot a pan smeared with butter. Mmmmmm.

All in all, the pickerel can hold his own against most any other fish. He's not only good for the pond, but fun fishing for and eating as well. What more could anyone want?



Bald Eagle Survey

A continuous study of the breeding of the bald eagle in Virginia is being made by the Field Activities Committee of the VSO. They are most anxious to have reports on any and all nests.

The specific information desired about each nest includes (1) location, (2) kind and size of tree in which built, (3) dates of building, activity and incubation (if possible without disturbing birds), (4) dates and number of young in the nest, and (5) causes for failure, if any. Probably only a few lucky observers will be able to obtain all of this information, but, if nothing else, the location of the nest should be reported.

There may be young in the nest now, so now is the time to investigate all known or suspected nests. Make reports to F. R. Scott, 115 Kennondale Lane, Richmond 26, Virginia and he will forward a compilation to the Audubon Society of the District of Columbia.

186 Wildlife Degrees Awarded

Last year the 17 colleges affiliated with the Cooperative Wildlife Research Program bestowed 186 degrees upon wildlife students. Of these 8 were doctorates, 63 master's degrees and the rest bachelor degrees.

The Cooperative Unit Program is sponsored jointly by the Fish and Wildlife Service, the state conservation departments and land grant colleges of 15 states and Alaska, and the Wildlife Management Institute. Each unit has a minimum budget of \$18,000 a year for salaries and facilities.

The primary purposes of the cooperative program are to encourage the training of personnel for wildlife management; to conduct wildlife research; and to promote wildlife education.

The Young and the Old of It

There has always been considerable interest in the appellation of the male, female and young of various animals. "Just how some of these designations were determined seems shrouded in considerable mystery," says Henry P. Davis, public relations manager, Remington Arms Company, Inc. "For instance, why should a very young rabbit be called a fawn, the same as the young of a deer or caribou?"

The diverse adult male animals that are called bull are also somewhat surprising. Bulls can be elks, moose, cattle, seals, elephants, giraffes, whales, walruses, buffalos or sharks. And bucks can be adult male rabbits, caribou, mules, white-tailed deer or trout. Cubs are the young of wolves, coyotes, large cats, and sharks. Besides being young deer, rabbits and caribou, fawns are also young mules and young antelopes.

Second prize went to Robert Bleckenstaff and Carroll King for making electricity from light. An archaeological report on work done with the National Park Jamestown archaeological team won third place for Robert Kirby Smith of Henry Clay High School, Ashland.

22nd North American Wildlife Conference to be Held in Washington

Held each year in a major city, the North American Wildlife Conference will meet next March in the Statler Hotel in the nation's capital. More than 1,000 conservation authorities, outdoor writers and sportsmen from nearly all the states, Canada, Alaska and Mexico are expected to attend this 22nd conference.

These wildlife conferences are a clearing house for the latest news on the restoration and wise management of wildlife, forest, water and soil resources. Information about this and other meetings can be obtained from The Wildlife Management Institute, 709 Wire Building, Washington 5, D. C.

Shenandoah Park All Cleaned Up

All trimmed and spruce, Virginia's Shenandoah National Park opened its 20th season April 1st. Extensive cleaning-up operations preceded the opening, according to Guy D. Edwards, who's Superintendent of the 190,000 acre national park that boasts the famed Skyline Drive high in Virginia's Blue Ridge Mountains. Maintenance crews trimmed underbrush and removed dead limbs which had been torn loose by winter winds. Also rangers have been posted at several entrances early this year, Edwards said, to provide more fire protection for the park's vast forests and to offer assistance to early visitors.



"Care to come in and see my etchings?"

Science Fair Attracts Varied Projects

At a science fair held at Randolph-Macon College in Ashland, John E. Elliott, Allen Fillis and Buddy Redfearn of Princess Anne High School presented the science project, a Van de Graff generator, which was awarded first prize, a \$100 college scholarship.

Community Forests Pay Dividends

Nearly 3,300 communities in 47 states have community forests planted and owned by local governments. They provide citizens with such benefits as revenue from the sale of timber, erosion and flood control and outdoor recreational areas.

Community forests range in size from a five-acre tract in Arkansas to a 67,000 acre watershed forest in Seattle, Washington. The Seattle forest cost one million dollars and it has paid for itself in timber sales alone.

In Fredericksburg, Virginia, city employees have harvested approximately 400 cords of pulpwood from a 110-acre city-owned forest. A net profit of \$3,000 was realized from the sale of pulpwood. About half the trees were thinned out, and future plans call for a second pulpwood cutting in about five years and for saw-mill timber in approximately 15 years.

Bald Cypress to be Saved

A 100 acre area of bald cypress forest located on Battle Creek in southern Maryland will be made into a forest preserve by the Nature Conservancy, a national conservation organization. "Our generation has the responsibility," says George B. Fell, executive director of Nature Conservancy, "for saving a few samples of each of the natural communities that formerly occupied our land and gave the American continent its unique splendor. Such samples, if preserved, will be 'living museums' of the primeval wilderness for all generations to come."

Contributions toward preservation of the cypress forest should be sent to Nature Conservancy, 4200 22nd St., Northeast, Washington 18, D. C.

Canada to Use Dogs for Waterfowl Banding

Trained retrievers will be used for the first time this summer in waterfowl operations in Canada and on the northern prairies of that country. Experimental use of dogs has proven that they are more economical than other techniques for capturing immature birds who have a tendency to leave the water when frightened and

scurry to any available brush cover. One man and a dog can catch, band and release between 20 and 50 birds.

According to present plans, four or five retrievers will be used. The dogs will be selected for their ability to perform properly, which means they must be able to handle the birds without injuring them, and to obey commands without hesitation.

Expert Marksman Helped Waltonians

One of the highspots of the opening of Walton Park, in Chesterfield County and only 7 miles outside of Richmond, was the exhibition of fancy



Herb Parsons, the world's greatest trick shot, displays his skill at the opening of the Richmond chapter of the I. W. L. A. park.

shooting by Herb Parsons, who is billed as "the world's greatest trick shot." Not only did he hit the ejected cartridge of a .22 rifle but he kept up a running barrage of commentary at the same time he performed this and similar seemingly impossible feats. Largely because of Parsons, who had been featured on local television stations and movie shorts, a big crowd turned out to be entertained and dazzled by his performance — and also to look over the 201 acre plot which the Richmond chapter of the Izaak Walton League is turning into a park for its members and for interested sportsmen who wish to become members.

"Twilight Sleep"

Use of ether had proved so effective in simplifying the work of fin-clip-

ping trout that workers, as an experiment, applied the same practice while stripping eggs from rainbow trout. Almost a million eggs were taken from the etherized trout in half the time usually required. In addition, the percentage of "delivered" eggs that "eyed up" nearly doubled.

The spawn-takers, who formerly had to tussle with slippery trout weighing up to 15 pounds, were enthusiastic boosters for "twilight sleep" for the finny expectant mothers.

More About Bellied Buzzards

We are still hearing from readers about belled buzzards. This time the letter comes to us from Ray W. Rhoades, of Chester, Pennsylvania. "Reading about the belled buzzards in Virginia Wildlife takes me back to my youth," says Mr. Rhoades.

"I was born on a farm near Burr Hill, Virginia, in Orange County. I remember well one day in May. My dad and I were plowing in the field when we heard a sheep bell ringing. After looking around for a while, we discovered that the bell was on a buzzard sailing very low over the field. Being 15 or 16 years of age would tie in with Mr. Bailey's story from Brookneal, Virginia, which would make the date around 1911 to 1913."

Louisiana Birds

Of especial interest to all bird lovers should be the new Louisiana Wild Life and Fisheries Commission publication edited by Dr. George H. Lowery, Jr., Professor of Zoology and Director of the Museum of Natural Sciences at Louisiana State University (Louisiana State University Press, Baton Rouge, 1955).

Louisiana Birds is beautifully illustrated by Robert E. Tucker, who depicts every one of the known 377 species of Louisiana birdlife. Brilliant color plates emphasize individual bird characteristics for easier recognition in natural habitats.

Dr. Lowery, highly respected in the field of ornithology, has done extensive research and writing on the "classification and distribution of birds and mammals and on the mechanics of bird migrations."

Field Force Notes



Commission Contributes Substantially to Youth Education

Fines imposed and collected from violators of the game, inland fish and dog laws for the year 1955 amounted to \$76,864.35 and the court costs were \$35,439.32, a total of \$112,303.67, according to I. T. Quinn, executive director of the Commission of Game and Inland Fisheries.

"Since all misdemeanor fines under Virginia's constitution go into the State Literary Fund," Quinn said, "it will be seen that through the activities of the enforcement staff of the commission a neat sum of more than \$75,000.00 has been contributed to the education of the youth of Virginia."

Growing Bait in Your Own Backyard

An ordinary wash tub filled with the proper soil and buried in the ground should yield plenty of fish worms, says wildlife management specialists at VPI. The tub or other bed should rise three or four inches above ground level.

Fifty to 100 worms are enough to start a tub-sized worm bed. English red-worm or "red wrigglers" are preferred by most pole and cork experts.

Moisture and soil are key considerations in a productive worm bed. A fine clay loam containing lots of humus or well decomposed organic matter is ideal. Locate the bed in the shade and moisten with water every week or two, or more during the summer if needed.

To provide needed drainage, the specialists suggest cutting a two-inch hole in the bottom of the container and covering it with a patch of fine copper screen wire.

If the worms are to be sold pint-sized ice cream cartons containing 50 to 100 wrigglers make desirable marketing packages.

You Have to See it to Believe it

Early in April Philip Lowery, Jr., of Powhatan Courthouse caught an 11 lb. 2 oz. largemouth bass in Powhatan Lake, which has been stocked by the Commission of Game and Inland Fisheries. The bass was 26" long with a girth of 20", and was caught with a flatfish as bait and a bait casting outfit with a 20 lb. test line.

Powhatan Lake is one of the commission controlled lakes where intensive fish management is being carried out.



Phil Lowery Jr. (right) checks in his 11 lb. 2 oz. largemouth bass; with Bill Rotherf (left) taking the weights and measurements. It was caught in Powhatan Lakes.

Anti-Litterbug Slogans

"A Ladybug picks up — A Litterbug messes up," is the slogan concocted by Max Carpenter, Special Services Officer of the Commission of Game and Inland Fisheries. Mr. Carpenter has made signs with this slogan lettered on them for the Three Ridge Garden Club of Stuarts Draft in connection with a display he has been helping them with; but he has no objection to any conservation-minded groups borrowing the slogan if they should so desire.

In New Mexico the Wilderness Society in their campaign against litterbugs have adopted the slogan, "You CAN Take it With You."

Virginia's Hunting and Fishing Licenses Cheaper Than Most

In the sale of hunting licenses Virginia ranked 8th during the fiscal year ending June 30, 1955. But it ranked 15th in the amount of revenue derived from the sale of hunting licenses.

In the sale of fishing licenses Virginia ranked 13th during the same period, and 24th in the amount of revenue derived from the sale of fishing licenses.

This means that in Virginia the prices of hunting and fishing licenses are generally below the prices of similar licenses sold by other states.

Interest in Farm Ponds Increasing

A one-acre fish pond — well-managed, properly fertilized, adequately fished — will yield an annual harvest averaging 200 lbs. of fish each year and provide 400 hours of good fishing, says the Fish and Wildlife Service. Already there are more than 1,500,000 farm ponds (averaging an acre a-piece) and 100,000 more are being made each year through soil conservation and water storage projects.

The idea, which first took hold in the southeastern states where almost half the ponds are located, has now spread to other sections of the country. It has been seen that farm ponds have a direct value in providing family fishing at the same time they relieve fishing pressure on natural fishing areas.

To produce gratifying fishing, a farm pond must be well constructed on a favorable site, properly stocked, and must receive continuing management. Small ponds should be stocked only with hatchery fish of the species, sizes and numbers recommended for the area by state or federal biologists. Promiscuous introduction of wild fish, either before or after stocking, is a common cause of poor fishing.

Wildlife Questions and Answers

Ques.: What species of fish and frogs carry their young in their mouths for protection? Do snakes ever do this?

Ans.: Among fishes, the female of the species in many of the African and a few of the South American Cichlids carries the young in her mouth after hatching. When a little older the fish may be seen swimming about the water near the mother, who promptly takes them into her mouth again when danger appears.

In some sea catfishes the eggs, then the newly hatched young are carried for as long as eight weeks in the mouth of the male. During this period the parent does not eat.

The male of one South American frog species carries the developing eggs and tadpoles in his mouth.

In all of the animals where the young are thus carried, the floor of the mouth of the parent is constructed so as to form a pouch.

Herpetologists are generally agreed that because they have no pouch-like structures, snakes are unable to carry their young in this manner. Strong digestive juices in the reptile digestive tract would injure the baby snakes.

Ques.: Is it unlawful to train dogs without a hunting license? Also, is it unlawful to train dogs on Sunday?

Ans.: You may exercise your dogs at any time provided the dogs are not in actual pursuit of or capturing any wild game or furbearing animals. If they are in actual pursuit, then it is hunting and must be done in a lawful manner via license, season, bag limits, permission, etc.

It is unlawful to hunt or kill or shoot any wild bird or wild animal on Sunday; it is declared a rest day by statute.

Ques.: I have heard that snakes hibernate in the winter months and often gather in dens. Do you know of any records of this taking place?

Ans.: Hibernating aggregations of snakes have long been known and studied in many parts of the country. Dr. J. A. Oliver, curator of reptiles, New York Zoological Society, reports the most interesting aggregation of hibernating snakes. Stuart Criddle discovered a den and excavated a total of 257 snakes. There were 148 smooth green snakes, 101 red-bellied snakes, and 8 garter snakes. All were in the same den.

Ques.: Does the color of fish vary with different waters?

Ans.: Marion Toole, chief aquatic biologist of the Texas Game and Fish Commission says that fish taken from muddy waters will always be very light in color, whereas fish taken from clear waters will be very dark. This is nature's way of camouflaging fish by protective coloration. A light colored fish swimming in clear water could be easily observed from above by fish-eating birds, but a fish dark colored on its back is much harder for birds to spot. Fish in muddy water do not need this protection.



Ques.: I have seen several large black spiders recently on the campus of Sweet Briar College. They were about half the size of a tarantula and their legs were slightly thinner and longer compared to the body than the tarantula. Can you identify them and what do they eat?

Ans.: It is always difficult to identify plants or animals from a general verbal description. Taxonomy is an intricate and technical science. In many instances, identification can only be made by a specialist with the aid of a high-powered microscope.

Spiders are all carnivorous. Their prey consist chiefly of insects and weaker members of their own species. The mouth parts of a spider are fitted only for the taking of liquid food and they suck juices from their victims' bodies.

Ques.: Is it true that if no birds are killed out of a covey in the fall or during hunting season they will not pair off in the spring? Does a male quail mate with more than one female during the spring?

Ans.: In reply to your first question, it is obviously not true since quail which are not hunted at all reproduce. In response to the second, evidence does not seem to be conclusive. The expert Herbert L. Stoddard, in his authoritative book, "The Bobwhite Quail," says: "There is some evidence that when both survive, the old birds remain mated in the covey during the winter months, and are the first to withdraw from the covey . . . The history of one banded pair is interesting in this connection, as it seems to indicate preference for a former mate . . . Other instances came to light in the banding studies that indicate that the pairs may remain mated from season to season if both survive, though evidence on this point is not conclusive."

Ques.: Can you tell me what the heaviest and lightest woods in the world are?

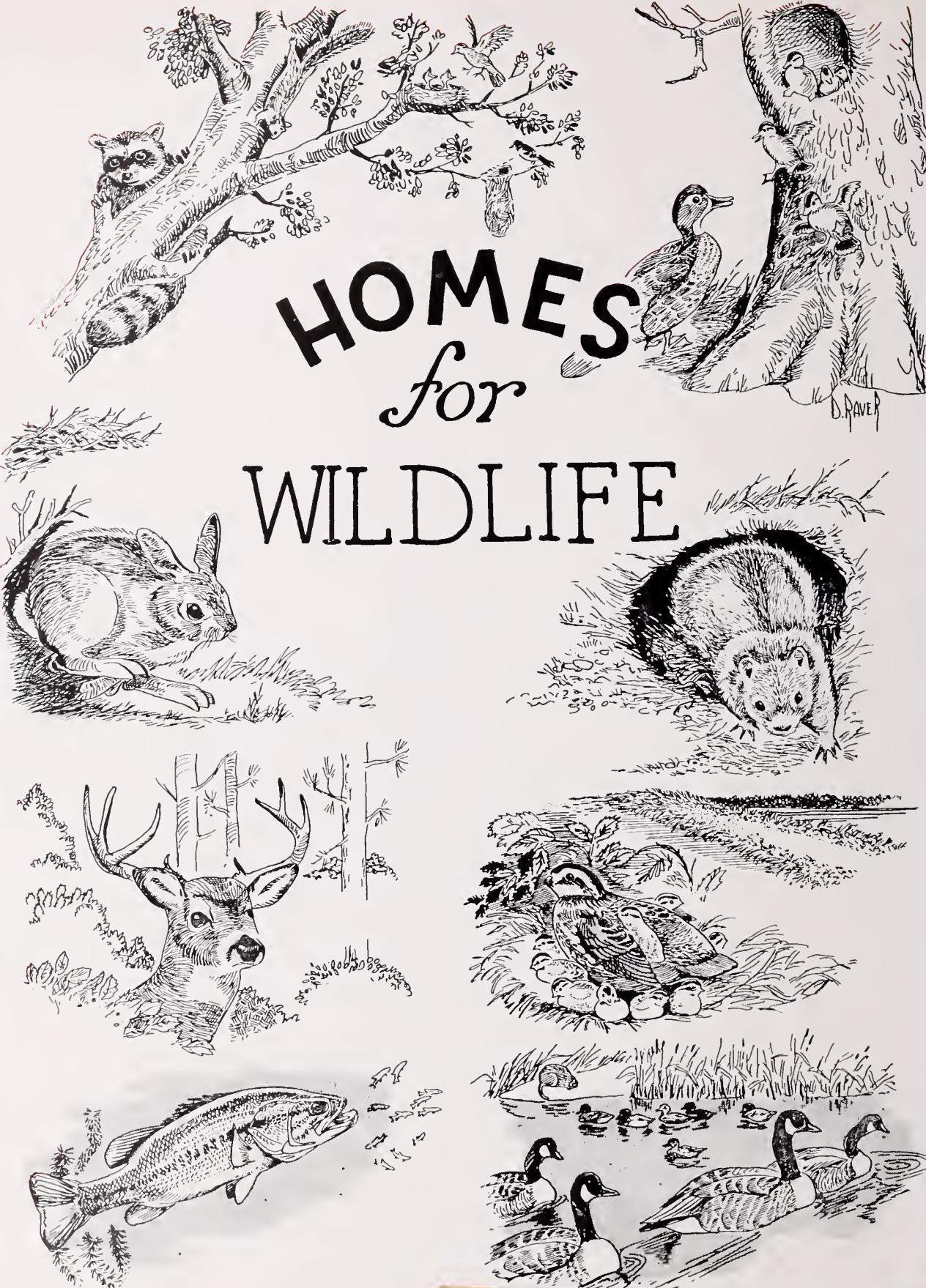
Ans.: According to the National Lumber Manufacturers Association, the heaviest known wood in the world is black ironwood, native to the West Indies and Florida keys. The lightest wood is believed to be tano, found in Siam and the Malayan Peninsula.

Ques.: What is the best type of sock to wear inside of your waders?

Ans.: Wear wool socks, says Claude M. Kreider in the May issue of *The Fisherman*. Two pairs of medium-weight, pure wool hand-knit ones will be warmer than one heavy pair. To get the waders off easily when your feet are damp wear a pair of silk socks inside the wool ones; they will slip free, leaving the heavier ones inside the waders to be taken out and dried.

Ques.: Since the tough leathery shell of egg-laying lizards and snakes is so hard to break, how is it that tiny lizards and snakes are able to hatch? Does the parent help break the shell at hatching time?

Ans.: The young of egg-laying lizards and snakes have an egg tooth protruding from the front of the roof of the mouth. This egg tooth is a true tooth carried on the premaxillary bone. The sharp tooth makes a neat knife-like slit in the egg shell, enabling the young to emerge. It is shed a short time after hatching, usually within a day or two.



HOMES for

WILDLIFE

DRAVER